

**AMENDMENT****IN THE CLAIMS**

**The following listing of claims replaces all prior listings of claims in this application.**

**Claims:**

**1. (currently amended)** A projector capable of detecting remaining lifetime of the light source lamp therein, comprising:

an image projection device having a light source lamp with a pair of lamp electrodes;

a detection device for detecting a voltage across the lamp electrodes;

an analog-to-digital converter for converting the voltage to a digital voltage value; and

a control unit for comparing the digital voltage value with a relational table to ~~calculate~~obtain the remaining lifetime of the light source lamp directly, wherein the relational table reflects the relationship between the remaining lifetime and the voltage across the lamp electrodes of the light source lamp.

**2. (original)** The projector as claimed in claim 1, further comprising a timer for accumulating the time used of the lamp, and the control unit comparing the digital value with the relational table when the time used of the lamp exceeds a first predetermined time.

**3. (original)** The projector as claimed in claim 1, further comprising a memory unit for storing the relational table.

**4. (original)** The projector as claimed in claim 1, wherein the control unit further outputs a warning signal when the lifetime of the lamp is less than a predetermined time.

5. (currently amended) The projector as claimed in claim 1, ~~wherein the relational table reflects the relationship between the remaining lifetime and the voltage across the lamp electrodes of the lamp~~ wherein the control unit further outputs a warning signal when digital voltage value exceeds a predetermined value and turns off the projector within a predetermined time interval.

6. (original) The projector as claimed in claim 1, wherein, in the lamp, the voltage across the lamp electrodes increases as time used of the lamp increases.

7. (currently amended) A method of detecting the remaining lifetime of a light source lamp, comprising  
measuring a voltage across the lamp electrodes of the light source lamp;  
converting the voltage to a digital voltage value; and  
comparing the digital voltage value with a relational table directly to calculate obtain the remaining lifetime of the lamp, ~~wherein the relational table reflects the relationship between the remaining lifetime and the voltages across the lamp electrodes of the lamp.~~

8. (original) The method as claimed in claim 7, further comprising a step of detecting the time used of the lamp.

9. (currently amended) The method as claimed in claim 7, further comprising a step of displaying the remaining lifetime of the lamp in a projected image.

10. (original) The method as claimed in claim 7, further comprising a step of outputting a warning signal when the remaining lifetime is less than a predetermined time.

11. (currently amended) The method as claimed in claim 7, ~~wherein the relational table reflects the relationship between the remaining lifetime and the voltages across the lamp electrodes of the lamp~~ further comprising a step of turning off a projector including the light source lamp within a

**predetermined time interval when the detected voltage exceeds a predetermined voltage.**

**12. (new)** A projector capable of detecting remaining lifetime of the light source lamp therein, comprising:

an image projection device having a light source lamp with a pair of lamp electrodes and projecting images;

a detection device for detecting a voltage across the lamp electrodes;

an analog-to-digital converter for converting the detected voltage to a digital voltage value; and

a control unit for comparing the digital voltage value with a relational table to calculate the remaining lifetime of the lamp, and turning off the projector within a predetermined time interval when the detected voltage exceeds a predetermined voltage, wherein the relational table reflects the relationship between the remaining lifetime and the voltage across the lamp electrodes of the lamp.

**13. (new)** The projector as claimed in claim 12, further comprising a memory unit for storing the relational table.

**14. (new)** The projector as claimed in claim 12, wherein the control unit further outputs a warning signal when the lifetime of the lamp is less than a predetermined time.

**15. (new)** The projector as claimed in claim 12, wherein the image projection device projects the remaining life of the lamp in the projected images.